Panasonic

P2HD

P2 LINE-UP CATALOG
APRIL. 2013

EXPANDABLE AN

PRODUCTION FUNCTIONS

Functions for image production such as slow- and quick-motion shooting can be added.

BASIC PERFORMANCE

The P2HD Series starts with basic broadcast performance, and can add expandability and future upgrading capability.

UPLINK SOLUTIONS

Support functions for uplink solution such as LiveU can be added.

NETWORK FUNCTION

Wired/wireless LAN, proxy image preview, playlist editing and other networking functions can be added.

The Panasonic P2HD Series continues to lead the way toward file-based broadcasting and image production applications. Based on the new concept of "Expandable and Upgradable," the series features networking functions that allow it to link with smartphones and tablet devices for direct network connection, and cine-like image production functions like slow- and quick-motion shooting. By offering these as optional upgrades, the P2HD Series lets you configure precisely the system you want, without any unneeded functions. The new AVC-ULTRA* codec family meets every professional user's needs with the favorable image quality and bit rate desired. And media has evolved as well, with the development of the compact microP2 card. This provides major improvements in cost, speed and mobility for all broadcast and image production applications.

In addition to offering levels of reliability, speed and rewrite performance that could only be possible with solid-state memory, P2HD Series achieves superb images and extended recording with the AVC-Intra codec. Using P2 files in a variety of IT devices allows a consistent, file-based workflow — from high-speed transfer to editing, searching and archiving. The P2HD Series also helps to conserve the environment in ways that only a memory-card recorder can do, because it requires no transport mechanism, has low power consumption, and enables repeated reuse of the P2 card.

* Scheduled for future release. Fees are charged for upgrades. AVC-ULTRA compatibility does not indicate support for all AVC-ULTRA formats.

D UPGRADABLE

AVC ULTRA

This new codec family prepares P2HD for the future
with better image quality and higher efficiency.

micro P2

The microP2 card offers greater
compactness, lighter weight, and better
cost-performance.

AVC ULTRA

Meets various professional needs in image production,
from 4K x 2K mastering to streaming distribution.

AVC-ULTRA Family

AVC-Intra	AVC-Intra Class4:4:4 12bit 4:4:4 *1
AVC-Intra	AVC-Intra Class200 10 bit 4:2:2 200 Mbps *2
AVC-Intra	AVC-Intra Class100 10 bit 4:2:2 100 Mbps *2 AVC-Intra Class50 10 bit 4:2:0 50 Mbps *2
AVC-LongG	AVC-LongG G50 AVC-LongG G25 10 bit 4:2:2 25 Mbps – 50 Mbps *2 AVC-LongG G12 AVC-LongG G6 8 bit 4:2:0 6 Mbps – 12 Mbps *2
AVC-Proxy	AVC-Proxy 6 Mbps (1920x1080) 3.5 Mbps (960x540) 1.5 Mbps (640x360) 800 Kbps (480x270)

4Kx2K 1080p 1080i 720p

- **Master Quality** — Movie, Drama, Documentary
- **Higher Image Quality** — Drama, Sports, News, House Format
- **Low Bit Rate** — Faster Transfer, Smaller Storage
- **Speedy** — Networking, Web Browsing

Excellent Quality

Efficient Operation

*1: The bit rate is under consideration. *2: The bit rate is approximate at 1080/60i.

High Reliability and Fast Transfer

Speedy, Low-Cost Newsgathering with Excellent Mobility

Advanced, File-Based Workflow

High Reliability Supports Creativity

Image disturbances can be caused by vibration and impact, while recording/playback heads can be clogged by dust and other particles. These problems, which often occur under harsh video production conditions, are eliminated by recording onto the solid-state P2 card and the microP2 card.
The P2 card's rugged specifications ensure reliable recordings under harsh conditions and enhance newsgathering mobility.
The absence of a transport mechanism and the ability to achieve file-based image acquisition — made possible by solid-state memory — speed up both mobility and media access. Mistakenly writing over valuable data. This makes it easier to concentrate on shooting.

Large 64 GB Capacity with a P2 card/microP2 card

The P2 card and the microP2 card offer up to 64 GB of storage capacity, and up to 64 minutes of recording time with the AVC-Intra100 codec.
This large capacity provides sufficient recording time even for a two-slot-recorder.

* Total card capacity includes space for data management, such as system data; therefore, actual usable area is less than the capacity indicated on the card.

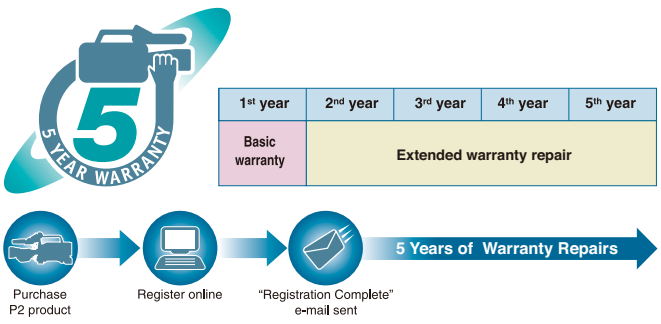
P2HD 5 Year Warranty Repair Program

The P2HD 5 year warranty repair program further enhances selecting P2 camera recorder's and recorder's outstanding reliability and durability, and helps to reduce running costs. Once you purchase an applicable model (indicated by a mark on the catalog's product introduction pages), simply register it at Panasonic's Website to be eligible for maximum five year warranty repair service.

High-Speed Transfer, Access to IT Media

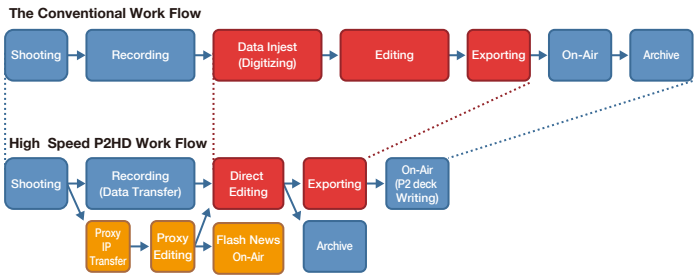
P2 content can be directly input to a file-based (Windows® PC/Mac) image system* through a variety of interfaces, including SuperSpeed USB 3.0, e-SATA, and IEEE 1394. Data can also be input to a P2-compatible nonlinear editor via a P2 drive, and copied to a commercially available HDD or SSD.
The data can then be transferred over a network and shared for smooth on-air broadcasting or archiving.
P2 files are based on the MXF (OP-ATOM, OP1b) format, for fast and direct editing access. And editing work starts much faster than it does with a conventional VTR, because there is no digitizing or ingesting time required. Simultaneous background archiving and other functions also save time and lower costs.

*The PC must be installed with the P2 driver (downloadable for free) in order to mount P2 cards. Refer to "Service and Support" on the Panasonic Website (http://pro-av.panasonic.net/).



*Please note that this program is not available in some countries and regions. The basic warranty period may vary depending on the country or region. Not all repair work is covered by this extended warranty. The maximum warranty period may be adjusted depending on the number of hours the devices have been used. Details about user registration and the program: For US Customers; www.panasonic.com/broadcast, For Outside US; http://panasonic.biz/sav/pass_e

Speeding Up the Workflow



P2 files are based on the MXF (OP-ATOM) format, so the files on P2 cards can be directly edited without the need for digitizing or ingesting. This greatly reduces the time required for editing, which in itself is generally the most time-consuming part of the workflow. Low-rate proxy data, which is recorded simultaneously, can be previewed on-site with a tablet PC or smartphone, and transferred over the Internet for newsflash use. Editing can then begin with the proxy data even before the actual data arrives for extra convenience and speed.

Metadata, Proxy, Wireless and Other Functions Enhance IT Integration to Revolutionize the Workflow

Helping to Conserve the Environment

The new systems cut CO^2 emissions under the dual themes of "Reuse" and "Reduce."

Metadata Management with Wireless Connectivity

P2 files can be provided with metadata containing the recording time, GPS position (when mounted with the option), text information (such as content name and staff information) and text memos tagged to selected frames. The AJ-HPX3100G and the AG-HPX600 P2 Camera Recorders use a new wireless connection function* to input metadata from a tablet terminal or smartphone. Metadata-based searching and managing make it easy to integrate editing, broadcasting and archiving operations.

* The optional AJ-WM30 Wireless Module and the Upgrade Software Key are required for wireless connection.

More Functional Proxy Data for Flash News Reports and Offline Editing

P2 cam (compatible models) can generate low-rate proxy data (video and audio) for breaking news transferred by public network or Webcasts. And the proxy data can be efficiently handled in advance with offline editing. The AJ-HPX3100G and the AG-HPX600 P2 Camera Recorders can also generate* higher quality "AVC-Proxy" data and allows proxy previews on a wireless terminal.

* The optional AJ-WM30 Wireless Module and the Upgrade Software Key are required for wireless connection.
*The optional Video Encoder Board is required for using proxy data.
The use of DCF Technologies is under license from Multi-Format, Inc.

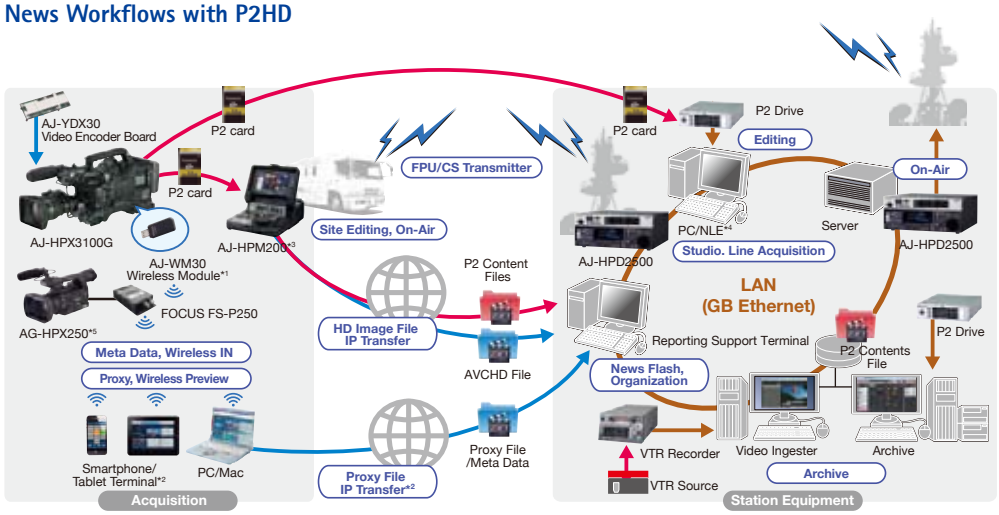
P2HD Effectively Reduces CO_2 Emissions

From a management standpoint, environmental efforts are being increasingly reflected in the image and value of today's corporations. P2HD products meet the stringent Panasonic "Green Product" certification standards, which testifies for their excellent environmental performance. P2HD is closely linked with environmental conservation in routine broadcasting and production operations, making it a true with next-generation technology.
Reusing: Because abrasion-free, dropout-free P2 cards can be rewritten, TV stations don't generate large amounts of used tape like they do with VTRs. Also, because P2HD systems use solid-state memory, there are fewer parts to replace — such as recording heads and transport mechanism — which again cuts down on waste.
Reducing: P2 card recorders are lighter and require less power than VTRs. In actual use, a variety of other processes combine to reduce power consumption even more, such as the fact that a compact, lightweight design and fast start-up let you stand-by on location with the power turned off.

New Devices Further Cut Power Consumption

Reducing power consumption is one of the highest priorities in the development of P2HD products. The AJ-HPX3100G Camera Recorder achieves this with integrated circuitry such as a newly developed digital signal processer and AVC-Intra codec LSI. Compared with the previous AJ-HPX3000G, which was marketed from 2007 to 2010, it cuts power consumption by about 23%. The AG-HPD24 Portable Recorder incorporates an image-processing LSI to bring greater compactness, lighter weight, and lower power consumption to AVC-Intra recording and playback. In fact, it reduces power consumption by about 92% compared to the AJ-HD3700B HD D5 VTR, which as marketed from 2003 to 2010.

News Workflows with P2HD



When recording, a variety of information is registered as metadata in P2HD files and proxy files. Recordings can then be transmitted to a station by a Field Pick-up Unit (FPU) from a broadcast van equipped with the AJ-HPM200 or delivered on a P2 card, HDD or SSD. Prior to the data's arrival, low-rate proxy or AVCHD*3 files can be transferred by FTP over the Internet for on-air broadcasting of breaking news, review to get up a program, or off-line editing.*4
All recordings are archived so network terminals inside the station can search for and preview them based on metadata.*5

The use of DCF Technologies is under license from Multi-Format, Inc.
*1: The optional AJ-WM30 Wireless Module and AJ-SFU3100G Upgrade Software Key are required for wireless connection.
*2: Proxy data can be saved only in PCs/Macs. *3: Conversion to AVCHD files requires an AJ-HPM200 Memory Card Recorder equipped with an optional AJ-YCX250G AVCHD Codec Board.
*4: See page 22 in this catalog for information on P2 alliance partners. *5: You may need to update its firmware. Please refer to the "service and support" on the Panasonic Website (http://pro-av.panasonic.net/).

CAMERA RECORDERS

The reliability, compact size, light weight and high-speed startup that come only with memory card recording give the P2 HD Memory Card Camera Recorders their remarkable mobility.

And the lineup is wide enough to meet virtually all news gathering and image acquisition needs — with the moviemaking abilities of the P2 Varicam, the broadcasting and professional functions and specs of the P2 cam, and the advanced, shoulder-type level of performance of the P2 handheld.

Mobility and Advanced Functions Exclusive to the P2 Cam

5 YEAR WARRANTY

* Register as a owner for this device to receive a special service warranty up to five years of free warranty repairs.

AJ-HPX3700G

High-Quality P2HD VariCam for High-End Production, with RGB 4:4:4 Output in Full 1920 x 1080 Pixel Resolution and P-10 Log Gamma

- 2.2 megapixel 2/3 type CCD for full 1920 x 1080 HD images.
- Recording format: AVC-Intra100/50 and DVCPRO HD. AVC-Intra100 uses the 10 bit 4:2:2 sampling.
- HD SDI output of 23.98PsF/24PsF video signals.
- Dual-link HD SDI output for camera through RGB4:4:4/10 bit log gamma signals. Compatible with uncompressed, high-end workflows.
- Dual-link RGB 4:4:4 output with simultaneous 4:2:2 record in-camera.
- Variable frame rate function ranging from 1 fps to 30 fps.
- Selectable gamma modes, including Film-Rec.
- Scan-reverse function for film lens use.
- Grip handle has five threaded holes to mount film accessories.
- The Chromatic Aberration Compensation (CAC) function works with a CAC-compatible lens.
- High F10 sensitivity at 2,000 lx. Minimum illumination of 0.042 lx (at 1 fps VFR and +30 dB gain-up).
- 14 bit A/D processing, 12 pole linear matrix color correction function.
- DRS (Dynamic Range Stretch) provides a wider dynamic range with minimal blown highlights and blocked shadows.
- Scene file, user buttons, user menu and focus assist functions.
- 2 wheel (ND and CC) optical filters.
- 48 kHz/16 bit, 4 channel digital audio recording.
- Switchable between 59.94 Hz and 50 Hz recording.
- Five P2 card slots allow continuous recording, card selection, hot swapping, loop rec, pre-rec, interval rec and one-shot recording.
- Text memos and shot markers can be added.
- Proxy data recording possible (with the optional AJ-YAX800G).
- USB 2.0 (Host and Device) interface.
- Genlock input, switchable to return video (HD-Y).
- Camera studio system (option) is supported.

The use of DCF Technologies is under license from Multi-Format, Inc.

AJ-HPX2700G

Multifunctional P2HD VariCam with a Variable Frame Rate from 1 to 60 fps: Superior Creativity and Outstanding Cost-Performance

- Variable Frame Rate of 1 fps to 60 fps in 720p, for creative overcranked or under cranked shooting.
- Recording format: AVC-Intra100/50 and DVCPRO HD. AVC-Intra100 uses the 10 bit 4:2:2 sampling.
- HD SDI Output at 23.98PsF/24PsF Video Signals.
- Selectable gamma modes, including Film-Rec.
- Scan-reverse function for film lens use.
- Two independent HD SDI outputs with parallel use capability.
- Grip handle has five threaded holes to mount film accessories.
- HD progressive 2/3 type 3 CCD system.
- The Chromatic Aberration Compensation (CAC) function works with a CAC-compatible lens.
- High F10 sensitivity at 2,000 lx. Minimum illumination of 0.021 lx (at 1 fps VFR and +30 dB gain-up).
- 14 bit A/D processing, 12 pole linear matrix color correction function.
- DRS (Dynamic Range Stretch) provides a wider dynamic range with minimal blown highlights and blocked shadows.
- Scene file, user buttons, user menu and focus assist functions.
- 2 wheel (ND and CC) optical filters.
- 48 kHz/16 bit, 4 channel digital audio recording.
- Switchable between 59.94 Hz and 50 Hz recording.
- Five P2 card slots allow continuous recording, card selection, hot swapping, loop rec, pre-rec, interval rec and one-shot recording.
- Text memos and shot markers can be added.
- Proxy data recording possible (with the optional AJ-YAX800G).
- DVCPRO (IEEE 1394) output terminal* for back-up use.
- USB 2.0 (Host and Device) interface.
- Camera studio system (option) is supported.

*Outputs DVCPRO HD codec recording only.

The use of DCF Technologies is under license from Multi-Format, Inc.

AJ-HPX3700G/HPX2700G Specification

Power Source :	DC 12 V (11 V to 17 V)
Power Consumption :	AJ-HPX3700G: 42 W, main unit only, LCD monitor ON AJ-HPX2700G: 38 W, main unit only, LCD monitor ON
Weight:	approx. 4.9 kg (10.8 lb), main unit only
Dimensions (W x H x D):	137 mm x 209 mm x 318 mm (5-7/16 inches x 8-1/4 inches x 12-9/16 inches) without handle and option cover (exclude projection)

5 YEAR WARRANTY

AVC-INTRA DVCPRO HD

AJ-HPX3100G

Featuring a 2.2 Megapixel CCD. High-End Performance in a Compact, Lightweight Design with Low Power Consumption.

- 2.2 megapixel 2/3 type CCD for full-HD (1920 x 1080) images.
- The AVC-Intra100 codec records 10 bit/4:2:2 sampling images.
- A high sensitivity of F11/F12,*1 and an excellent S/N ratio of 59 dB.*2
- Supports high-quality 24 bit audio recording (AVC-Intra100/50).*3
- Switchable between 59.94 Hz and 50 Hz recording for world wide use.
- SD (480i/576i) recording in DVCPRO 50, DVCPRO or DV codec.
- Chromatic Aberration Compensation (CAC) function.
- DRS (Dynamic Range Stretch) provides a wider dynamic range.
- F-REC mode and scan-reverse function.
- Digital Super Gain enables 0.005 lx of minimum illumination.
- Digital Zoom by 2x, 3x or 4x.
- 2 wheel (ND and CC) optical filters.
- Compatible with the microP2 card.*4
- A wireless network connection*5 lets you use a smartphone,*6 tablet device*6 or PC/Mac to confirm the camera status, to input metadata and also to view proxy video (streaming or playback)*7 as well as save it.*8
- A low center of gravity body offers unobstructed views and light weight.
- The one-clip recording function records multiple cuts in a single clip.
- Text memos, shot markers and metadata such as GPS*9 can be added.
- Scene file, user button and focus assist functions.
- Output for HD/SD SDI and composite monitor out, with built-in downconverter, and HD/SD SDI input are equipped.
- USB 2.0 (HOST/DEVICE), TC IN, TC OUT and GENLOCK IN which can be used for return video in, are equipped.
- Optional UniSlot wireless receiver and camera studio system are supported.

*1: F11 sensitivity is attainable in 1080/59.94i mode, and F12 is attainable in 1080/50i mode.
*2: The S/N ratio is 59 dB when DNR is turned ON.
*3: Only in the AVC-Intra100/50 mode. For playback, equipment or software compatible with 24 bit audio is required. For details, refer to “Note Regarding 24 bit Audio” on the back cover.
*4: You may need to update its firmware. Please refer to the “service and support” on the Panasonic Website (http://pro-av.panasonic.net/). Requires the optional AJ-P2AD1G Memory Card Adapter to use the microP2 Card .
*5: The optional AJ-WM30 Wireless Module and AJ-SFU3100G Upgrade Software Key are required for wireless connection. The use of DCF Technologies is under license from Multi-Format, Inc.
*6: Playback of proxy data recorded in HQ or SHQ mode is possible. Panasonic doesn’t guarantee all types of smart phone or tablet device working properly. .
*7: The optional AJ-YDX30 Video Encoder Board is required for use of proxy data. To view streaming proxy video, AJ-HPX3100G may need to be updated. Please refer to the following web site for details. http://pro-av.panasonic.net/
*8: Proxy data can be saved only in PCs/Macs.
*9: The optional AJ-GPS910G GPS Unit is required.

A-HPX3100G Specification

Power Source :	DC 12 V (11 V to 17 V)
Power Consumption :	34W, main unit only
Weight:	approx. 3.9 kg (8.6 lb), main unit only
Dimensions (W x H x D):	140 mm x 270.5 mm x 335.8 mm (5-1/2 inches x 10-5/8 inches x 13-1/4 inches) without handle and option cover (exclude projection)

AJ-HPX2000/2100

Broadcasting 2/3 type P2HD Camera Recorder, Equipped with Five P2 card Slots and IEEE 1394a*1 Interface

- HD Progressive 2/3 type 3 CCD System.
- High sensitivity of F10 (at 2000 lx). Minimum illumination of 0.007 lx (at +74 dB gain).
- DRS (Dynamic Range Stretch) provides a wider dynamic range.
- 14 bit A/D processing and improved digital image processing technology.
- 12 pole linear matrix color correction function.
- Supports AVC-Intra100/50 codec (with the optional AJ-YBX200G).
- DVCPRO HD (1080i and 720p) recording and playback.
- Switchable between 59.94 Hz and 50 Hz recording for world wide use.
- SD (480i/576i) recording in DVCPRO 50, DVCPRO or DV codec.
- 48 kHz/16 bit, 4 channel digital audio recording.
- Line recording via HD/SD SDI input (with the optional AJ-YA350AG).
- Five P2 card slots allow continuous recording, card selection, hot-swap rec, loop rec and pre-rec.
- Compatible with the microP2 card.*2 (Scheduled for August 2013)
- The one-clip recording function records multiple cuts in a single clip.*3
- Text memos and shot markers can be added.
- Scene file, user buttons, user menu, auto white balance with ATW.
- AJ-HPX2000: 4 Position Optical Filter.
- AJ-HPX2100: 2 wheel (ND and CC) Optical Filters.
- Proxy data recording possible (with the optional AJ-YAX800G).
- IEEE 1394a*1 (AVC), USB 2.0 (Host and Device) interface.
- UniSlot wireless receiver slot.
- Camera studio system (option) is supported.

*1: IEEE 1394a input/output are not available for AVC-Intra codec files.
*2: You may need to update its firmware. Please refer to the “service and support” on the Panasonic Website (http://pro-av.panasonic.net/). Requires the optional AJ-P2AD1G Memory Card Adapter to use the microP2 Card.
*3: The camera recorder software must be upgraded to the latest version. For details, visit http://pro-av.panasonic.net/en/index.html

AJ-HPX2000/2100 Specification

Power Source :	DC 12 V (11 V to 17 V)
Power Consumption :	36 W, main unit only, LCD monitor OFF
Weight:	approx. 4.5 kg (9.9 lb), main unit only
Dimensions (W x H x D):	137 mm x 209 mm x 318 mm (5-7/16 inches x 8-1/4 inches x 12-9/16 inches) without handle and wireless option cover (exclude projection)

AVC-INTRA DVCPRO HD DVCPRO 50 DVCPRO DV

AG-HPX600

Compact, Lightweight, High-Sensitivity 2/3-type Camera Recorder with Excellent Expandability and a Future Proof Design

- A 2/3-type MOS sensor offers F12 sensitivity at 59.94 Hz (F13 at 50 Hz) and low noise with an S/N of 59 dB (standard).
- A Chromatic Aberration Compensation (CAC) function.
- DRS (Dynamic Range Stretch) provides a wider dynamic range.
- Advanced, high-precision Flash Band Compensation.
- Seven-mode gamma, includes two cine-like modes.
- HD recording format: AVC-Intra100, AVC-Intra50 and DVCPRO HD.
- HD multi-format: 1080/24p/25p/30p/50i/60i, 720/24p/25p/30p/50p/60p.*1
- SD (480i/576i) recording in DVCPRO 50, DVCPRO or DV codec.
- Supports 48 kHz/16 bit four channels digital audio recording.
- Two P2 card slots are provided on the operation panel side.
- Compatible with the microP2 card.*2
- The one-clip recording function records multiple cuts in a single clip.
- Loop rec, pre-rec, interval rec and one-shot rec capability.*3
- Shooting assist functions: focus assist, scene file, user buttons, shockless AWB, waveform/vectorscope, zebra, Y-get and mode-check.
- The newly designed, optional Color HD Viewfinder serves as an LCD monitor.
- Equipped with HD SDI output (input is optional), HDMI output, monitor output, TC input/output, genlock input and USB 2.0 (Host/Device) interface.
- Optional UniSlot wireless receiver and camera studio system are supported.
- Optional networking function: High-resolution proxy video recording,*4 streaming with a wired/wireless LAN,*5 and proxy video editing.*6
- Optional LiveU portable uplink solution compatibility: Uplink status, settings, and network conditions can be displayed on the viewfinder, and the uplink can be started or stopped.*7
- Optional production package: Variable frame rate shooting and 24 PsF output.*8
- Compatible in the near future with the AVC-ULTRA codec family.*9

*1: 60i, 24p, and 30p are actually recorded in 59.94 Hz, 23.98 Hz, and 29.97 Hz, respectively.
*2: You may need to update its firmware. Please refer to the “service and support” on the Panasonic Website (http://pro-av.panasonic.net/) .Requires the optional AJ-P2AD1G Memory Card Adapter to use the microP2 Card .
*3: Some functions, including optional expansion functions, cannot be used in certain modes and function combinations.
*4: The optional AG-YDX600G Video Encoder Board is required to use proxy data. The use of DCF Technologies is under license from Multi-Format, Inc.
*5: The optional AJ-WM30 Wireless Module and AG-SFU601G Upgrade Software Key are required.
*6: The optional AG-SFU604G Upgrade Software Key is required.
*7: The optional AG-SFU603G Upgrade Software Key is required.
*8: The optional AG-SFU602G Upgrade Software Key is required.
*9: Not all formats of AVC-ULTRA will be supported. Fees are charged for upgrades.

AG-HPX600 Specification

Power Source :	DC 12 V (11 V to 17 V)
Power Consumption :	approx. 18 W (main unit only)
Weight:	approx. 2.8 kg (6.2 lb), main unit only
Dimensions (W x H x D):	144 mm x 267 mm x 350 mm (5-21/32 inches x 10-1/2 inches x 13-25/32 inches) excluding prominent parts

AG-HPX500 *series*

(AG-HPX500/502)

Outstanding Cost-to-Performance and Superb 2/3 type Quality — the P2HD Camera Recorder for Video Professionals

- Standard 2/3 type interchangeable lens mount system.
- The Chromatic Aberration Compensation (CAC) function compensates for slight chromatic aberration at frame edges that cannot be compensated for by the lens (this function requires the use of a CAC-compatible lens).
- APT (Advanced Progressive Technology) produces higher image quality with HD Progressive 3 CCD and 19 bit digital signal processor.
- 1080i and 720p HD recording using the DVCPRO HD codec for broadcast use assures both superior images and top reliability.
- 50 Hz/60 Hz selector function allows 1080/50i and 720/50p HD recording for PAL areas.
- SD (480i/576i) recording in DVCPRO 50, DVCPRO or DV multi-codec.
- Four P2 card slots allow continuous recording, card selection, hot swapping, loop rec, pre-rec, interval rec and one-shot recording.
- Text memos and shot markers can be added.
- 48 kHz/16 bit, 4 channel digital audio recording.
- Variable frame rate feature (in 720p, 11 steps) allows film-like slow-speed or quick-speed shooting.
- 720p native mode achieves a speed effect without requiring additional equipment. A VariCam-compatible 720p over 60p mode is also provided.
- Seven-mode gamma, includes two Cine-Like modes.
- Slow, synchro and high-speed shutter.
- Scene file, user buttons, user menu and focus assist functions.
- Output for HD/SD SDI (BNC), Video (BNC) and Component (D4), with built-in downconverter.
- TC input/output provides multi-camera synchro shooting.
- IEEE 1394a (AVC, Host and Device), USB 2.0 (Device) interface.
- RCU terminal for optional AJ-RC10G or AG-EC4G remote control unit.
- Camera studio system (option) is supported.

AG-HPX500 series Specification

Power Source :	DC 12 V (11 V to 17 V)
Power Consumption :	approx. 23W with Viewfinder and LCD monitor ON
Weight:	approx. 3.8 kg (8.4 lb), without viewfinder
Dimensions (W x H x D):	140 mm x 261 mm x 318 mm (5-9/16 inches x 10-5/16 inches x 12-9/16 inches) without handle (exclude projection)

AG-HPX370 *series*

(AG-HPX370/371/372/373/374)

Full F10*1 Sensitivity from a Newly Developed MOS Image Sensor. High-Quality Images in a Lightweight, Mobile, Compact Body.

- Featuring a new 1/3 type MOS sensor for full-HD (1920 x 1080) resolution and F10*1 sensitivity.
- Comes mounted with a Fujinon 1/3 type 17x zoom lens (included)
- Chromatic Aberration Compensation (CAC) function.
- DRS (Dynamic Range Stretch) provides a wider dynamic range.
- Recording format: AVC-Intra100, AVC-Intra50 and DVCPRO HD.
- HD multi-format recording: 1080i and 720p.
- SD multi-codec recording in DVCPRO 50/DVCPRO/DV.
- 59.94 Hz/50 Hz selector function.
- Variable frame rate feature (in 720p, 20 steps) allows film-like slow-speed or quick-speed shooting.
- Seven-mode gamma, includes two Cine-Like modes.
- This redesigned shoulder-mount camera has a low center of gravity.
- Two P2 card slots are provided on the operation panel side.
- Compatible with the microP2 card.*2 (Scheduled for June 2013)
- The One-Clip Record function enables multiple clips that are recorded separately by start/stop operations to be handled as a single clip.
- Scene file, user buttons, and focus assist functions
- Waveform and vectorscope display.
- A color viewfinder featuring the Liquid Crystal On Silicon (LCOS) display panel for bright, high-resolution images.
- A high resolution, 16:9 aspect ratio, 81.28 mm (3.2 inches) LCD monitor.
- Output for HD/SD SDI and Video, with built-in downconverter.
- USB 2.0 (Host/Device) and IEEE 1394a (AVC)*3 interfaces. TC IN, TC OUT and GENLOCK IN terminals.
- RCU terminal for optional AJ-RC10G or AG-EC4G remote control unit.
- Proxy data recording possible (with the optional AJ-YAX800G).
- Camera studio system (option) is supported.

*1: Its sensitivity is F10 in 1080/59.94i and F11 in 1080/50i.
*2: You may need to update its firmware. Please refer to the "service and support" on the Panasonic Website (http://pro-av.panasonic.net/). Requires the optional AJ-P2AD1G Memory Card Adapter to use the microP2 Card .
*3: IEEE 1394a input/output are not available AVC-Intra codec files.

AG-HPX370 series Specification

Power Source :	DC 12 V (11 V to 17 V)
Power Consumption :	approx. 19 W, with VF, lens and LCD monitor ON
Weight:	approx. 3.6 kg (7.9 lb), without Lens, approx. battery and accessories
Dimensions (W x H x D):	246 mm x 251 mm x 441 mm (9-11/16 inches × 9-7/8 inches × 17-3/8 inches) excluding prominent parts 246 mm x 251 mm x 549 mm (9-11/16 inches × 9-7/8 inches × 21-5/8 inches) with Fujinon lens, excluding prominent parts

AG-HPX255/AG-HPX250

High-Powered Lens, High-Sensitivity Sensor and High-Quality Full-HD 10 bit 4:2:2 Recording — Shoulder-Type Performance in a Handheld Camera for Broadcasting and Production Work

- 22x (f = 28 mm to 616 mm, 35 mm equivalent) zoom lens with three manual operation rings – zoom, focus and iris.
- Featuring a new U.L.T. (Ultra Luminance Technology) image sensor (1/3 type 2.2 megapixel MOS sensor).
- Two mode of Focus assist (Expand and Focus-in-red)*1
- DRS (Dynamic Range Stretch) provides a wider dynamic range.
- HD multi-format recording: 1080/24p, 1080/25p, 1080/30p, 1080/50i, 1080/60i, 720/24p, 720/25p, 720/30p, 720/50p, 720/60p*2 and SD (480/24p, 480/30p, 480/60i, 576/25p, 576/50i)*2
- 59.94 Hz/50 Hz selector function.
- VFR (variable frame rate): Enables film-camera-like speed effects. 1080 setting: 17 steps of 1fps to 30fps, 720 setting: 25 steps of 1fps to 60fps (both at 59.94 Hz).
- Recording format: AVC-Intra100, AVC-Intra50 and DVCPRO HD/DVCPRO 50/ DVCPRO/DV.
- Seven-mode selectable gamma, such as cine-like mode, for rich gradation.
- 4-position (OFF, 1/4 ND, 1/16 ND, 1/64 ND) optical neutral density filter wheel.
- Supports FOCUS FS-P250 portable H.264 proxy recorder*1 (sold separately) for proxy recording and wireless network connection.*3

The use of DCF Technologies is under license from Multi-Format, Inc.

- Scene file, user buttons, and focus assist functions.
- Two P2 card slots enable consecutive recording and hot-swapping.
- Compatible with the microP2 card.*4
- The one-clip recording function records multiple cuts in a single clip.
- Pre-rec, loop rec, one-shot rec and interval rec capability.
- 48 kHz/16 bit, 4 channel digital audio recording. XLR 2 channel audio input terminals supporting 48 V phantom power supply.
- Genlock input and TC input/output provides multi-camera synchro shooting.
- Equipped with HD SDI output and HDMI output for easy connection to broadcasting and professional systems.
- USB 2.0 (Host/Device) and IEEE 1394a (AVC)*5 interface.
- **The AG-HPX255** is fully prepared for broadcast use, including camera remote capabilities with the optional AG-EC4G Extension Control Unit.

*1: AG-HPX250 may need to be updated. Please refer to the following web site for details. http://pro-av.panasonic.net/
*2: 60i, 24p and 30p, are actually recorded in 59.94 Hz, 23.98 Hz and 29.97 Hz, respectively.
*3: FOCUS FS-P250 (sold separately) and AJ-WM30 (option) are required.
*4: You may need to update its firmware. Please refer to the "service and support" on the Panasonic Website (http://pro-av.panasonic.net/). Requires the optional AJ-P2AD1G Memory Card Adapter to use the microP2 Card .
*5: IEEE 1394a input/output are not available for AVC-Intra codec files. AG-HPX250EJ does not support input via USB and IEEE 1394a.

AG-HPX255/HPX250 Specification

Power Source :	DC7.2 V with battery, DC7.9 V with DC input
Power Consumption :	15.0 W (LCD ON)
Weight:	approx. 2.5 kg (5.5 lb), without battery and accessories
Dimensions (W x H x D):	180 mm x 195 mm x 438 mm (7 inches x 7-11/16 inches x 17-1/4 inches) without prominent parts

AVC INTRA DVCPRO HD DVCPRO 50 DVCPRO DV

AVC INTRA DVCPRO HD DVCPRO 50 DVCPRO DV

AG-HPX170 *series*

(AG-HPX170/171/172/173/174)

Compact, Lightweight HD/SD Camera Recorder Brings High Image Quality and Easy Handheld Mobility

- A 13x zoom lens with 28 mm (35 mm equivalent) wide-angle setting, 72 mm diameter and cam-driven manual zoom.
- 1/3 type 16:9 progressive CCD for high image quality and sensitivity.
- High-performance DSP with 14 bit A/D conversion and 19 bit inner processing capability.
- 20 step frame rate selector for creative variable-speed shooting. Features 720p native mode and over 60p/50p mode.
- Selectable gamma including Cinelike mode.
- HD recording in 1080/24p, 1080/60i and 720/60p in 59.94 Hz model. (1080/25p 1080/50i and 720/50p in 50 Hz model.)*
- SD multi-codec recording in DVCPRO 50/DVCPRO/DV. 59.94 Hz: AG-HPX170/171, 50 Hz: AG-HPX171/172/173/174.
- Two P2 card slots allow up to 128 minutes of continuous HD recording when using two 64 GB P2 cards in full frame rate DVCPRO HD.
- Multifunction P2 capabilities. Hot swapping (changing cards while recording), loop rec, pre-rec, one-shot rec and interval rec capability.
- Text memos and shot markers can be added.
- 48 kHz/16 bit, 4 channel digital audio recording. XLR 2 channel audio input terminals supporting 48 V phantom power supply.
- Compact hand-held size weighs only 1.9 kg (4.2 lb).
- Auto or manual operation of focus and aperture.
- Focus assist functions of center zoom, histogram and focus bar display.
- Waveform and vectorscope display. Scene files, user buttons.
- IEEE 1394 and USB 2.0 terminals for PC interface.
- HD/SD SDI output, component output (mini-D), time-code setting via IEEE 1394, and camera remote function.

*60i, 24p, 30p, are actually recorded in 59.94Hz, 23.98Hz, 29.97Hz, respectively. 1080/24p is to be recorded in 1080/60i (59.94i) pull-down. 1080/25p is to be recorded in 1080/50i pull-down.

AG-HPX170 series Specification

Power Source :	DC7.2 V with battery, DC7.9 V with DC input
Power Consumption :	10.9 W, 11.7 W (LCD ON), 13.8 W (Max)
Weight:	approx. 1.9 kg (4.2 lb), without battery and accessories
Dimensions (W x H x D):	154 mm x 179.5 mm x 397 mm (6-1/8 inches x 7-1/8 inches x 15-11/16 inches) without prominent parts

AG-3DP1G

High-Quality Images, High Sensitivity, Powerful Zooming and Multi-Camera Versatility. The Integrated Twin-lens Camera Recorder for Broadcast-Level 3D.

- High-powered 17x HD twin-lens system covers a wide shooting range.
- Remote control supported for focus, zoom, iris and convergence.
- 3D mode selection for maximum zooming effect: Near/Normal/Extra.
- New 3D assist functions (ALERT / CONV. / Z-WFM) for reliable and convenient 3D shooting.
- Monitor image selection of Left, Right, Mix or Side By Side modes.
- High-sensitivity, high-quality, dual 3MOS U.L.T. (Ultra Luminance Technology) image sensors.
- The AVC-Intra100 codec records 1920 x 1080 full-pixel HD 3D with 10 bit 4:2:2 full sampling to deliver stunning image quality.
- HD multi-format recording: 1080 60i/50i/30pN/25pN/24pN, 720 60p/50p/30pN/25pN/24pN.*
- 59.94 Hz/50 Hz selector function for global use.
- 3D or 2D recording mode selection onto double P2 card slots.
- Variable frame rate feature (in 720p mode only) allows film-like slow-speed or quick-speed shooting.
- Six-mode selectable gamma, including cine-like mode, for rich gradation.
- Focus assist button and 3-position gain seletor.
- Simplified waveform and vectorscope display.
- Scene file, user file, user buttons.
- 4-position (CLEAR, 1/4 ND, 1/16 ND, 1/64 ND) optical neutral density filters.
- 81.3 mm (3.2 inches) 16:9 LCD color monitor with approximately 921,000 dots.
- Equipped with GENLOCK IN and TC IN/OUT for multi-camera shooting.
- UniSlot wireless receiver and camera studio system are supported (option).
- Equipped with two HD SDI outputs with sync-rec function, RET input and 3D compatible HDMI output.
- An XLR 5 pin microphone terminal and two channels of XLR 3 pin audio input with +48V phantom power supply.
- Optional color AJ-CVF100G or B/W AJ-HVF21KG viewfinder can be used.

* 60i, 24p, and 30p, are actually recorded in 59.94 Hz, 23.98 Hz, and 29.97 Hz, respectively.

AG-3DP1G Specification

Power Source :	DC 12 V (11 V to 17 V)
Power Consumption :	38 W (Camera only)
Weight:	approx. 6.1 kg (13.4 lb) with camera unit only approx. 7.9 kg (17.4 lb) with an AJ-HVF21KG, a DIONIC battery, two P2 cards, and an AJ-MC900G microphone
Dimensions (W x H x D):	235 mm × 270.5 mm × 667.5 mm (9-1/4 inches × 10-5/8 inches × 26-1/4 inches) with camera unit only, excluding protrusions

3D PROFESSIONAL

DVCPRO HD DVCPRO 50 DVCPRO DV

AVC INTRA

RECORDER/PLAYER

Literally Filled with Quality and System Functions

The P2 HD Memory Card Recorder features high image quality and versatile functions in a compact body with low power consumption. It offers broadcast-industry standard digital/analog input and output, and a wide range of IT interfaces. And it fully supports a variety of image producing and broadcast work, such as backing up camera recorder data, playing and transmitting P2 card data, uploading to nonlinear editors and servers, and copying files to an external HDD.

Memory Card Recorder/Player "P2 deck"

AJ-HPD2500

A P2 Deck Enhances File-Based Broadcasting Workflows with Versatile Editing, Transmission and Networking Functions. It Supports 24 bit Audio.

- Three HD codecs supported: AVC-Intra100 for high-quality 10 bit 4:2:2 images, AVC-Intra50, and DVCPRO HD.
- 1080i and 720p recording and playback. 59.94 Hz/50 Hz switchable.
- 1080/24PsF in/out, native 24p recording with the AVC-Intra codec.
- SD (480/59.94i and 576/50i) codec supports DVCPRO 50, DVCPRO, and DV.
- Allows up-/down-conversion between HD and SD as well as cross-conversion between 720 and 1080 during playback, and up-conversion during recording.
- Hot-swap, loop rec and VANC recording.*1
- It supports high-quality 24 bit audio (AVC-Intra100/50).*2
- Equipped with six P2 card slots and one SD memory card slot.
- Compatible with the microP2 card.*3 (Scheduled for August 2013)
- Easy manual on-air transmission with one-clip playback and GUI hold.
- Play-list function includes advanced GUI and new functions such as independent AV tracks, insert/overwrite modes.
- It supports VDCP command via RS422 for supplying clip list to the controller.*2
- Recognize newly inserted P2 card during playback mode for emergency program change.*2
- Direct capture from an external VTR source onto the editing time-line via an RS-422A interface.
- Supports a simplified waveform and vectorscope display.
- Gigabit-Ethernet-compatible server/client function enables direct file transfer via internet. It supports reading and writing on P2 cards from an external server and PC.*2
- eSATA and USB 2.0 interfaces enable max. 4X (AVC-Intra100 or DVCPRO HD) high-speed copying to an external HDD and playback.*4
- AVCHD compatibility: playback, recording and cross-conversion between P2HD/AVCHD (with the optional AJ-YCX250G board).

The use of DCF Technologies is under license from Multi-Format, Inc.

- HD/SD SDI In/Out and AES/EBU digital audio In/Out.
- Analog I/O and versatile remote (RS-422A, RS-232C and parallel).
- 4U-size height for mounting into a 19 type rack (with optional adaptor).

*1: VANC recording is only possible at 59.94 Hz and 50 Hz.
*2: You may need to update its firmware. Please refer to the "service and support" on the Panasonic Website (http://pro-av.panasonic.net/).
*3: You may need to update its firmware. Please refer to the "service and support" on the Panasonic Website (http://pro-av.panasonic.net/). Requires the optional AJ-P2AD1G Memory Card Adapter to use the microP2 Card .
*4: Playback is based on disk drive performance, including spindle speed. Panasonic cannot guarantee smooth playback without dropped frames.

AJ-HPD2500 Specification

Power Source :	AC 100 V to 240 V, 50 Hz/60 Hz
Power Consumption :	Max. 65 W (full option)
Weight:	approx. 13 kg (28.7 lb)
Dimensions (W x H x D):	424.0 mm x 175.2 mm x 414.7 mm (16-3/4 inches x 6-15/16 inches x 16-3/8 inches) without support legs, connector and jog dial

5 YEAR WARRANTY

* Register as a owner for this device to receive a special service warranty up to five years of free warranty repairs.

AVC-INTRA DVCPRO HD DVCPRO 50 DVCPRO IN AVCHD

AJ-HPM200

Advanced P2 Mobile with Versatile Functions Such as Networking, AVCHD Compatibility (Optional) and eSATA Interface. It Supports 24 bit Audio.

- Three HD codecs supported: AVC-Intra100 for high-quality 10 bit 4:2:2 images, AVC-Intra50, and DVCPRO HD.
- 1080i and 720p recording and playback. 59.94 Hz/50 Hz switchable.
- 1080/24PsF input/output, native 1080/24p recording (AVC-Intra).
- SD (480/59.94i and 576/50i) codec supports DVCPRO 50, DVCPRO, and DV.
- Allows up-/down-conversion between HD and SD as well as cross-conversion between 720 and 1080 during playback, and up-conversion during recording.
- Hot-swap, loop rec and VANC recording.*1
- It supports high-quality 24 bit audio (AVC-Intra100/50).*2
- Equipped with six P2 card slots and one SD c ard slot.
- Compatible with the microP2 card.*3 (Scheduled for August 2013)
- Play-list function includes advanced GUI and new functions such as independent AV tracks, insert/overwrite modes.
- It supports VDCP command via RS422 for supplying clip list to the controller.*2
- Recognize newly inserted P2 card during playback mode for emergency program change.*2
- Direct capture from an external VTR source onto the editing time-line via an RS-422A interface.
- Supports simplified waveform monitor and vectorscope display.
- Gigabit-Ethernet-compatible server/client function enables direct file transfer via internet. It supports reading and writing on P2 cards from an external server and PC.*2
- eSATA and USB 2.0 interfaces enable max. 4x (AVC-Intra100 or DVCPRO HD) high-speed copying to an external HDD and playback.*4
- AVCHD compatibility: playback, recording and cross-conversion between P2HD/AVCHD (with the optional AJ-YCX250G board).

The use of DCF Technologies is under license from Multi-Format, Inc.

- HD/SD SDI input/output provided to allow line recording. Enables REC Start/Stop in sync with camera recorder.
- IEEE 1394a (AVC) interface enables DVCPRO HD/SD stream in/out.

*1: VANC recording is only possible at 59.94Hz and 50Hz.
*2: You may need to update its firmware. Please refer to the "service and support" on the Panasonic Website (http://pro-av.panasonic.net/).
*3: You may need to update its firmware. Please refer to the "service and support" on the Panasonic Website (http://pro-av.panasonic.net/). Requires the optional AJ-P2AD1G Memory Card Adapter to use the microP2 Card .
*4: Playback is based on disk drive performance, including spindle speed. Panasonic cannot guarantee smooth playback without dropped frames.

AJ-HPM200 Specification

Power Source :	AC 100 V to 240 V, 50 Hz/60 Hz / DC 12 V
Power Consumption :	AC: 60 W, DC: 12 V/4.8 A (full-option)
Weight:	approx. 6.6 kg (14.6 lb)
Dimensions (W x H x D):	301 mm x 120 mm x 412 mm (11-7/8 inches x 4-3/4 inches x 16-1/4 inches) without rubber shoes

AG-HPD24

HD Recording, HDMI*1 Output and USB 3.0*2 Interface. FULL HD 3D Recording and Playback with Two Units in Sync Operation

- Three HD recording and playback codecs supported: AVC-Intra100 for high-quality 10 bit 4:2:2 images, AVC-Intra50, and DVCPRO HD.
- 1080i (60i/50i), 720p (60p/50p) multi-format and DVCPRO50/DVCPRO/DV multi-codec capabilities.
- 1080/24PsF input/output*3, native 1080/23.98p recording(AVC-Intra).
- Supports VARICAM and other variable frame-rate videos.*4
- Allows up-/down-conversion between HD and SD as well as cross-conversion between 720 and 1080 during playback.
- 24 bit 4 channel*5 or 16 bit 8 channel 48 kHz high-quality digital audio.
- RS-422A remote terminal (9 pin) to control as an player.
- Playback function previews P2 files from an external storage device.*6
- USB 3.0 (HOST): Transfers files to an external storage at about four times AVC-Intra100 normal speed.*7
- USB 2.0 (DEVICE): Uploads files to a PC or nonlinear editor.
- HDMI (3D compatible) out, HD/SD SDI in/out, video monitor out, audio monitor out, headphone out, REF input, TC in/out and XLR audio in.
- Compatible with the microP2 card.*8
- Hot-swap, loop rec and VANC recording.*9
- A USB keyboard*10 (USB 2.0) can be connected.
- Two-Unit Sync Operation for 3D Recording/Playback.*11
- Compact size with 2U height and half-rack width, 2 kg (4.4 lb) weight.
- Built-in front speaker for audio monitoring.
- AC/DC power supply or Battery operation boosts convenience.

*1: Supports 3D.
*2: USB 3.0 host interface.
*3: Only in AVC-Intra100/50 mode.
*4: Only in 720p mode.
*5: Only in AVC-Intra100/50 mode. For playback, equipment or software compatible with 24 bit audio is required.
*6: Playback is based on disk drive performance, including spindle speed. Panasonic cannot guarantee smooth playback without dropped frames.
*7: The USB 3.0 standard has a maximum transfer rate of 5 Gbps. However, the actual transfer speed depends on the system configuration.
*8: You may need to update its firmware. Please refer to the "service and support" on the Panasonic Website (http://pro-av.panasonic.net/). Requires the optional AJ-P2AD1G Memory Card Adapter to use the microP2 Card. Two-Unit Sync Operation for 3D Recording/Playback does not work with microP2 card.
*9: VANC recording is only possible at 59.94 Hz and 50 Hz.
*10: Keyboards with a rating of up to 100 mA can be used. Panasonic cannot guarantee that all USB keyboards will work properly.
*11: 3D recording and playback are possible only in the AVC-Intra100/50 codec..

AG-HPD24 Specification

Power Source :	DC 7.2 V with battery, DC 7.9 V with AC adaptor (include)
Power Consumption :	approx. 19.8 W
Weight:	approx. 2.0 kg (4.4 lb), main unit only
Dimensions (W x H x D):	214 mm x 88 mm x 200 mm, without support legs (8-7/16 inches x 3-1/2 inches x 7-7/8 inches)

5 YEAR WARRANTY

AVC INTRA DVCPRO HD DVCPRO 50 DVCPRO DV AVCHD

Memory Card “P2 card F series”

AJ-P2E064FG
AJ-P2E032FG
AJ-P2E016FG

Large Data Storage Capacity, High Transfer Speed and Superb Reliability for Professional Use.

- Up to 64 GB P2 card is available and it achieves a long recording time.
- Complies with the Type-II PC Card Standard (Card Bus) for direct plug-in to the PC card slot of a laptop PC.*1
- Highly reliable, solid-state memory resists shock, vibration, and temperature changes.
- Ensures a long service life with repeated recording and initialization.*2
- An individual serial number, bar code, and write-protect switch ensure strict security.
- The P2 card transfers data at a high speed up to 1.2 Gbps.*3

*1: The included P2 driver must be installed in a Windows PC or Mac. To use the P2 card, the driver must be updated in some P2 products. Read “Notes Regarding the Handling of P2 Files Using a PC” on the back page.
*2: Card replacement interval is about five years when entire (100%) data is rewritten once a day.
*3: 1.2 Gbps is maximum transfer speed when using P2card F series. Transfer speed is subject to be changed depended on system configuration.

P2 card Specification

Weight:	approx. 45 g (1.6 oz)
Dimensions (L x W x D):	85.6 mm x 54 mm x 5 mm (3-3/8 inches x 2-3/16 inches x 1/4 inch)

Capacity of P2/microP2 card

	AJ-P2E016FG	AJ-P2E032FG AJ-P2M032AG	AJ-P2E064FG AJ-P2M064AG
Recording Capacity:*	approx. 16 GB	approx. 32 GB	approx. 64 GB

Rec/Play Time of P2/microP2 card

	AJ-P2E016FG	AJ-P2E032FG AJ-P2M032AG	AJ-P2E064FG AJ-P2M064AG
AVC-Intra100			
1080/23.98pN, 24pN:	approx. 20 min.	approx. 40 min.	approx. 80 min.
720/23.98pN:	approx. 40 min.	approx. 80 min.	approx. 160 min.
1080/59.94i, 50i, 720/59.94p,50p:	approx. 16 min.	approx. 32 min.	approx. 64 min.
AVC-Intra50:	approx. 32 min.	approx. 64 min.	approx. 128 min.
DVCPRO HD:	approx. 16 min.	approx. 32 min.	approx. 64 min.
DVCPRO 50:	approx. 32 min.	approx. 64 min.	approx. 128 min.
DVCPRO/DV:	approx. 64 min.	approx. 128 min.	approx. 256 min.

* Total card capacity includes space for data management such as system data, therefore, actual usable area is less than capacity indicated on the card.

Memory Card “microP2 card”

AJ-P2M064AG NEW
AJ-P2M032AG NEW

A P2 Card with SD Memory Card Size, High Transfer Speed and Superb Reliability.

- High-speed reading up to 2.0 Gbps, and high-speed transfer compliant with the UHS-II standard.
- Highly reliable design inherited from the P2 card with features like RAID technology and an error correction function.
- CPS (Content Protection System) for password-protected content.
- High bending and twisting strength (200% that of the SD standard).
- Easy management with a QR code for unique identification, a writable memo area, and a P2 card sized case.
- A function that informs the user when it is time to replace the card.

microP2 card Specification

Weight:	approx. 2 g (0.07 oz)
Dimensions (L x W x D):	32 mm x 24 mm x 2.1 mm (1-5/16 inches x 1 inch x 1/8 inch)

Memory Card Adapter

AJ-P2AD1G NEW

A Conversion Adapter for Using the microP2 Card in Existing P2 Equipment.*1

- High-speed reading up to 1.0 Gbps.
- Guaranteed writing speed up to AVC-Intra100 (excluding 60p/50p).
- Enables use of an SDHC/SDXC memory card in urgent situations.*2 Provides flexibility when, for example, a microP2 card cannot be purchased while shooting on location.

*1: A firmware upgrade is required for the P2 device.
Supported models: AJ-HPX3100G, AJ-HPX2000/HPX2100, AG-HPX600, AG-HPX370 series, AG-HPX255, AG-HPX250, AJ-HPD2500, AJ-HPM200, AG-HPD24, AG-HPG20
All P2 drive models, various software
*2: Not all operations are guaranteed when using an SDHC/SDXC memory card. A card must be 4GB to 128 GB and Class 10 or higher, and recording is possible only in DV/DVCPRO/DVCPRO50/AVC-Intra50 codecs. For detailed information about usable SDHC/SDXC memory card, visit our web-site.

AJ-P2AD1G Specification

Weight:	approx. 32 g (1.13 oz)
Dimensions (L x W x D):	85.6 mm x 54 mm x 5 mm (3-3/8 inches x 2-3/16 inches x 1/4 inch)

AJ-P2E016FG

AJ-P2E032FG

AJ-P2E064FG

AJ-P2M032AG

AJ-P2M064AG

AJ-P2AD1G

AJ-PCD35

PCI Express Interface

Five P2 card Slots and High Speed PCI Express Interface

- The PCI Express Interface lets you transfer P2 files at 1.0 Gbps or higher.*1
- Five P2 card slots let you mount up to five cards simultaneously.

AJ-PCD30

USB 3.0 Interface

Super Speed USB 3.0 Interface Boosts Workflows

- The USB 3.0 interface lets you transfer P2 files at 1.5 Gbps or higher.*1
- The USB 2.0 compatibility.
- Three P2 card slots let you mount three cards simultaneously.

AJ-PCD35/PCD30 Common Functions

- Compatible with the microP2 card.*2
- Install the P2 drive into a 5 type bay on a desktop PC.

*1: When using multiple F Series P2 cards. The actual transfer rate varies depending on the file being transferred, the system, the application software, the P2 card version and other conditions. If the PC does not have a USB 3.0 interface, data is transferred via USB 2.0. The P2 card driver software (provided with the product or downloadable for free) must be installed to read data from or write data to P2 cards. Please read “Notes Regarding the Handling of P2 Files Using a PC” on the back page.

*2: You may need to update its firmware. Please refer to the “service and support” on the Panasonic Website (http://pro-av.panasonic.net/). Requires the optional AJ-P2AD1G Memory Card Adapter to use the microP2 Card .

AJ-PCD35/AJ-PCD30 Specification

Power Source:	DC 16 V 0.6 A with AC adaptor, DC 12 V 0.8 A when PC built-in
AC Adaptor:	AC 100 V to 240 V (1.20 A), 50 Hz/60 Hz
Weight:	approx. 1.2 kg (2.6 lb)
Dimensions (W x H x D):	148.4 mm x 42.5 mm x 199.5 mm, excluding protruding parts (5-7/8 inches x 1-11/16 inches x 7-7/8 inches)

PC System Requirements

AJ-PCD35:	Microsoft Windows 7 Professional (SP1), Ultimate (SP1) 32 bit/64 bit Microsoft Windows Vista Business (SP1, SP2), Ultimate (SP1, SP2) 32 bit/64 bit Microsoft Windows XP Professional (SP2, SP3) 32 bit Mac OS X 10.4, 10.5, 10.6, 10.7, 10.8 (Intel® based Mac) 1 GB or more memory
AJ-PCD30:	Microsoft® Windows 7 Professional (SP1), Ultimate (SP1) 32 bit/64 bit Microsoft Windows Vista® Business (SP2), Ultimate (SP2) 32 bit/64 bit Microsoft Windows XP Professional (SP3) 32 bit Mac OS X 10.5, 10.6, 10.7, 10.8 (Intel® based Mac) 1 GB or more memory

AJ-PCD2G

USB 2.0 Interface

Compact, Lightweight, Low Cast USB Bus Powered 1-Slot P2 drive Ideal for Mobile Applications

- USB bus powered operation, connecting to a PC or a Mac with USB cables (2 cables*1).
- Compact of 25.5 mm (1-1/16 inches) thick, lightweight of 200 g (0.44 lb) and low-cost.
- Comes with driver software for both Windows and Mac OS X.
- Compatible with the microP2 card.*2

*1: One cable for data transmission and power supply, and the other cable exclusively for power supply.

*2: You may need to update its firmware . Please refer to the “service and support” on the Panasonic Website (http://pro-av.panasonic.net/). Requires the optional AJ-P2AD1G Memory Card Adapter to use the microP2 Card .

*The included P2 driver must be installed in the Windows PC or Mac. Please read “Notes Regarding the Handling of P2 Files Using a PC” on the back page.

AJ-PCD2G Specification

Power Source:	DC5 V 0.5 A
Weight:	approx. 200 g (0.44 lb) main unit only
Dimensions (W x H x D):	97 mm x 25.5 mm x 113 mm, excluding protruding parts (3-7/8 inches x 1-1/16 inches x 4-1/2 inches)
PC System Requirement:	Microsoft Windows 7 Professional (SP1), Ultimate (SP1) 32 bit/64 bit Microsoft Windows Vista Business (SP2), Ultimate (SP2) 32 bit/64 bit Microsoft Windows XP Professional (SP3) 32 bit Mac OS X 10.5, 10.6, 10.7, 10.8 (Intel® based Mac) 512MB or more memory (for Windows) 1GB or more memory (for Mac OS X)

AJ-MPD1G

NEW

USB 3.0 Interface

Compact, Lightweight, Low Cost USB Bus Powered microP2 Card Drive with USB 3.0 Support and 2 Card Slots.

- Compact, lightweight, low cost.
- The high-speed USB 3.0 interface allows high-speed reading up to 2.0 Gbps.
- Connection is also possible to a conventional USB 2.0 device.
- USB bus powered. Easy “Plug & Play” connection with PC or Mac.
- Latest Windows and Mac OS supported.
- Enables use of an SDHC/SDXC memory card. For detailed information about usable SDHC/SDXC memory card, visit our web-site.*1

*1: A card of Class 10 or higher must be used.
*The included P2 driver must be installed in the Windows PC or Mac. Please read “Notes Regarding the Handling of P2 Files Using a PC” on the back page.

AJ-MPD1G Specification

Power Source:	DC5 V (USB power supply)
Weight:	approx. 120 g or less (0.26 lb) main unit only
Dimensions (W x H x D):	97 mm x 25.4 mm x 112 mm, excluding protruding parts (3-13/16 inches x 1 inch x 4-7/16 inches)
PC System Requirement:	Microsoft Windows 8 32 bit/64 bit Microsoft Windows 7 Professional (SP1), Ultimate (SP1) 32 bit/64 bit Microsoft Windows XP Professional (SP3) 32 bit Mac OS X 10.6, 10.7, 10.8
Compatible Card:	microP2 card: 32 GB/64 GB SDXC memory card: 48 GB to 128 GB SDHC memory card: 4 GB to 32 GB

AJ-PCD35

AJ-PCD30

AJ-PCD2G

AJ-MPD1G

AG-MSU10

Fast Copying from P2 Cards to a Removable Solid-State Drive[*1]
A Mobile Tool for Speeding UP P2HD Workflow.

- Features a slot for a removable interface box that holds a P2 card slot and 2.5 type SSD (solid-state drive)[*1]. SSDs with a capacity of up to 2 TB (terabytes) can be used.
- Data can be copied from a P2 card to an SSD at maximum 50 MB/s[*2] speed, about 4X normal speed in AVC-Intra100[*3] and about 8X normal speed in AVC-Intra50[*3]
- Equipped with a eSATA/USB 2.0 host/device interface.[*4] Data can be transferred from a P2 card to an external HDD[*5], and from an SSD to a PC[*6].
- eSATA/USB 2.0 terminals are also featured on the removable interface box, allowing direct PC connection.[*4]
- An entire P2 card can be copied to an SSD with the single press of a button.
- Featuring a 81.28 mm (3.2 inches) wide LCD with clip thumbnail display or status display.
- Battery driven with a compact, lightweight and durable design.

*1: The removable SSD is not included with the product. Use a commercially available removable SSD that is recommended by Panasonic. In addition to the removable SSD interface box that comes with the AG-MSU10 as a standard accessory, an additional AG-MBX10 can be purchased as an option. Do not use Hard Disk Drive instead of an SSD. For compatible SSD information, please refer to the following WEB site. <http://pro-av.panasonic.net/en/sales_o/p2/ag-msu10/>
*2: File transfer speed varies depending on the SSD and external HDD writing speed, transferred files, P2 card version, and other conditions.
*3: Without verification (type-S only) for 4x/8x speed.
*4: A Device mode eSATA terminal is provided on the included removable SSD interface box. In Host mode, files can be transferred only between a P2 card and an external HDD. Files cannot be transferred between an internal SSD and an external HDD. The P2 card/SSD can be used in Device mode, but reading and writing with the P2 card is only possible with the USB 2.0 interface.
*5: It cannot internalize a HDD to the AG-MSU10.
*6: When using a P2 CMS (described on page 17), be sure to use the newest version.

AG-MSU10 Specification

Power Source :	DC 7.2 V, with battery DC 7.9 V, with AC adaptor
Current Consumption :	1.1 A
Weight:	AG-MSU10: approx. 770 g (1.69 lb) without SSD and Battery AG-MBX10G: approx. 135 g (0.3 lb) without SSD
Dimensions (W x H x D):	99 mm x 58 mm x 212 mm (3-15/16 inches x 2-5/16 inches x 8-3/8 inches) excluding protrusions

Support Desk

Mandatory tool for the all P2 users.
Visit http://pro-av.panasonic.net/ and click “P2 Support and Download”

P2 Viewer Plus

Win Mac

This is the application software that works on Windows PC and Macintosh. It enables playback of a clip recorded by P2 device. Sequential playback of several clips and the change of playback speed are also possible. Another features are copy of a clip, search of a clip and handling of metadata, etc.

Applicable Functions

(Win) Windows 7, Windows XP
(Mac) Mac OS X 10.8 Mountain Lion, 10.7 Lion, 10.6 Snow Leopard

Driver Software for P2 Products

The firmware inside each product is the newest version available.
Updating is possible with the use of an SD memory card.

P2 Driver

Win Mac

The driver software is required for Windows PC or Mac to recognize the P2 Card.

*Include USB Driver, PCI Express (PCIe) Driver, CardBusDriver, IEEE1394 Driver, P2 Store Manager ,and P2 Card Formatter for Mac (only for Card Bus Driver).

AVC-Intra Software Decoder for Mac

Mac

(AVC-Intra to QuickTime Transcoder software for Apple FinalCutPro)

This Panasonic AVC-Intra Software Decoder enables users to preview and import AVC-Intra format clips recorded by Panasonic recorders on FinalCutPro, by installing on Mac OS installed FinalCutPro software.

Please select version of AVC-Intra Decoder for version of FinalCutPro.

Ver1.5 for FinalCutPro6.0.3-6.0.5

*FinalCutPro7 natively supports decoding of AVC-Intra format.
* Notice: When previewing AVC-Intra on MacBookPro, "Limited Preview" is displayed on Log and Transfer window of FinalCutPro and audio is not able to be monitored.

AVC-Intra Encoder for Compressor

Mac

(QuickTime file to AVC-Intra encoder plug-in for Compressor)

AVC-Intra Encoder for Compressor is a plug-in software that can encode an edited material on Apple FinalCutPro to AVC-Intra100, 50 and export it with QuickTime file or Panasonic P2 on Apple Compressor. This plug-in has a capability that enables the user to input P2 metadata on Panasonic P2 export mode.

*Notice: This AVC-Intra Encoder plug-in software does not input standard-definition TV format (NTSC/PAL) to transcode. Also it does not convert HD TV format between 1080i, 1080p and 720p.
This AVC-Intra Encoder plug-in software inputs only QuickTime file format. In the case of P2 export, 4GB spanned clip in a P2 card is supported, but spanned clip with multiple cards is not supported.

One Clip Ingest Software

Win

One Clip Ingest Software is for combining the multiple clips on a P2 card or in a folder.

P2 Card Format Station

Win

P2 Card Format Station enables users to perform format, update firmware, and error check the P2 Card through PCMCIA card drive on the PC or P2 Drive.

PC operating condition

OS: Microsoft Windows 7, Windows Vista or Windows XP
Latest P2 driver for Windows must be installed. Log in with Administrator status

Drive Mount Converter

Win

The Drive Mount Converter is a Windows application for managing Type-S hard disks on which P2 card data is copied.

*A Type-S hard disk refers to one that is connected, via USB 2.0 or IEEE 1394, to a P2 device that is equipped with a USB Host or 1394 Host function. The Type-S hard disk is used for copying P2 card data. Please check the Operating Manual for your P2 device to determine whether or not it supports the configuring of a Type-S hard disk. Also, be sure to use a Type-S hard disk that allows connection via USB 2.0 or IEEE 1394.

CAC File for P2 Camera Recorder

(for AJ-HPX3700G/HPX2700G/HPX3100G/HPX3000G/ AG-HPX500 series/ HPX300 series/HPX370 series)

The CAC function of the camera corrects the registration error caused by the slight chromatic aberration that the lens cannot compensate for. This minimizes color bleeding into the surrounding image areas. Lenses compatible with the CAC function whose CAC data is registered in the camera will automatically start CAC operation.

P2 Viewer Plus

Win Mac

This new software supports P2 file viewing, copying and metadata editing for the latest Windows* and Mac operating systems. The graphical user interface (GUI) has been redesigned for easier operation. It also can be added the optional functions such as Ingesting function with a paid license.

Downloadable from the following web site.
http://pro-av.panasonic.net/ (Click "P2 Support and Download.")

▲ Mac Version

- Supports all P2 codec files, including AVC-Intra and AVC-Proxy files. Also supports 24 bit audio.
- Displays text memos, text markers, HD 16:9 wide, and proxy clip information as marks on the thumbnail icons.
- Provides the following clip playback operations: 1-frame feed/rewind, pause/resume, variable playback speed (-4.0 to 4.0), loop, fullscreen playback and prioritized proxy playback.
- Allows metadata to be displayed and edited.
- Searches clips by category, metadata keys (using up to four keys), and full-text in metadata.
- Enables edited metadata to be uploaded to a P2 camera recorder or other devices via a SD memory card.
- Supports selected clips copy function. (Copying a medium or folder base is not supported)
- Supports displaying information on P2 cards and formatting P2 cards
- When adding optional ingesting function AJ-SK001G (required licensing fee) allows clips recorded on P2 cards to be bulk-copied to hard disks or other media.

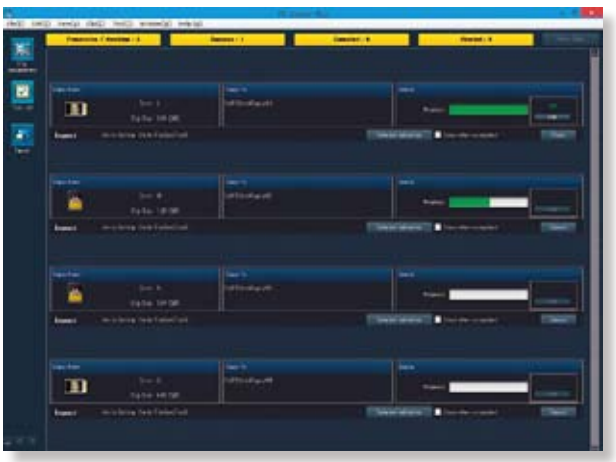
*Windows8 is not supported.

Ingesting Function Software Key
(Optional, Subject to Licensing Fee)

AJ-SK001G NEW

The Ingesting function copies all clips on the P2 cards to a storing medium such as an HDD. During ingesting, the clips are verified for secure copying, with log files created.

The Ingesting functions can be used for a 30 day trial period free of charge.



- Bulk clip copying: All clips on to the P2 cards can be copied to a storing medium such as an HDD.
- Registration of up to 100 tasks: A maximum of 10 P2 cards can be specified as copy sources, and a maximum of 10 destinations can be specified as copy destinations, making a total of 100 registered tasks, which are processed in order in the background.
- Verify function: During ingesting, the files can be automatically verified individually for secure copying.
- Log function: During ingesting, individual log files can be automatically created as a processing record. The created logs are stored for a designated period, and can be searched by customizing conditions.

* When P2 Viewer Plus is installed, the Ingesting function is also installed for a 30-day trial period. To continue using the Ingesting function after the trial period, you can purchase a key code to activate it.

PC System Requirements for P2 Viewer Plus

CPU:	DVCPRO HD: Pentium D (3.2 GHz or more) AVC-Intra50: Core2 Duo (2.66 GHz or more) AVC-Intra100: 2 x Quad Core Xeon, Core i7 965 Extreme Ed. or more, Core i7 2600 or more
Memory:	2GB or more
Display:	1024 pixels ×768 pixels
Windows:	Windows XP Professional (SP3) 32 bit (QuickTime 7.7.2) Windows 7 Professional (SP1) 32 bit/64 bit (QuickTime 7.7.2) Windows 7 Ultimatel (SP1) 32 bit/64 bit (QuickTime 7.7.2)
Mac:	Mac OS X 10.6.8 Snow Leopard (QuickTime 10.0) Mac OS X 10.7.4 Lion (QuickTime 10.1) Mac OS X 10.8.1 Mountain Lion (QuickTime 10.2)

* The "P2 driver" must be installed to play clips from P2 cards. The "AVC-Intra decoder" must be installed to play AVC-Intra format clips. Both can be downloaded from the Panasonic website for installation. Depending on the status of the PC used, dropped frames, black screen/white screen appearance, and audio disruption may occur during playback.

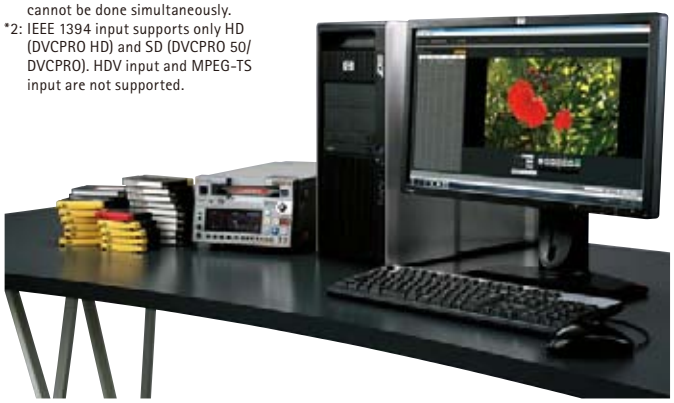
* To use this software on Windows, QuickTime must already be installed. Download QuickTime from the Apple Inc. website for installation. QuickTime Version 7.7.2 was checked for proper operation by Panasonic. To use the software on Windows, set the screen resolution to the standard setting (96 dpi). On Windows, a P2 card assigned to drive A or B is not recognized, so do not use drive A or B as the assignment destination of the P2 card.

Archiving File-Based and Tape-Based Data into a Single Database Saves Time and Space, and Lowers Costs.

VIDEO INGESTER

- Linking with Archiving Software*1 enables tape-recorded footage (HD/SD) to be input from a VTR via SDI or IEEE 1394,*2 for MXF-format file conversion, and saving and management on LTO tape or other media.
- Select manual ingesting for VTR playback operation, or auto ingesting to specify multiple IN/OUT points. The VTR is controlled via RS-422 remote.
- Auto ingest lets you set up to 100 ingestion segments, which can also be loaded from CSV files.
- The Error Rate Monitoring and Recording function eliminates the need for physical monitoring while loading and also increases reliability. The VTR status is monitored at regular intervals via RS-422 remote, and the monitoring result (error rate) is automatically recorded into a log and text memo for the converted video files.
- The AVC-Intra200 codec is supported. HD-D5 and other high-quality HD images are easily converted to files. In addition, an AVC-Intra100, AVC-Intra50, or DVCPRO HD codec can be selected for file conversion via an SDI interface.
- SD images can be converted to files with a DVCPRO 50 or DVCPRO codec.
- Via the IEEE 1394 interface, footage recorded with DVCPRO HD, DVCPRO 50, or DVCPRO can be converted to high-quality image files without encoding.
- Metadata can be added during ingestion. Files with metadata attached can be retrieved with metadata key words, for fast and easy reuse of tape footage.

1: Video Ingest Software can be installed on the same PC as the Archiving Software, but ingestion and archiving cannot be done simultaneously.
*2: IEEE 1394 input supports only HD (DVCPRO HD) and SD (DVCPRO 50/ DVCPRO). HDV input and MPEG-TS input are not supported.

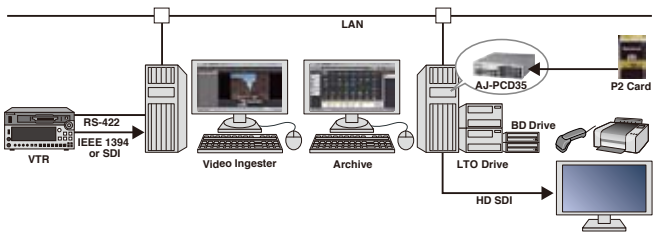


ARCHIVE

- Large-capacity, high-speed-transfer, high-reliability LTO.
- Proxy*1 video can be generated and metadata can be edited while archiving. Content can be searched easily by using metadata and proxy video.
- The graphical user interface (GUI) allows archive tasks to be registered by dragging and dropping the recording media, content, or bucket (temporary storage area) onto the archive media.
- Up to 10 copy tasks using multiple recording media and multiple archive media can be registered for batch execution.
- A bucket (temporary storage area)*2 can be provided to gather the link information for various recording content. This is convenient when dropping multiple recording media onto a single archive media.
- Original images can be directly*3 played from archive data stored on LTO tape. When restoring, copying is possible by designating the content or the media.
- Designated segments can be retrieved for copying from content saved onto LTO tape.*4 The segment is selected by placing IN/OUT marks onto proxy video using the viewer. Up to 10 segments can be designated for each clip.
- Related files (such as interview scripts, scenarios or photos etc.) can be attached to content files and archived together.
- High speed LTO backup: tape is copied at the LTO drive's maximum speed (approximately 7 hours for an LT06 tape).
- Media can be managed by reading barcodes printed onto labels or jackets.

*1: The use of DCF Technologies is under license from Multi-Format, Inc.
*2: Footage that is stored in automatically detected media, such as P2 cards, LTO tape or BD discs, cannot be registered in a bucket.
*3: Tape cueing requires some time when directly playing back LTO tapes.
*4: Partial retrieve is not possible for content stored on Blu-ray Discs.

System Configuration



This system comprises two PCs, one for ingestion and one for archiving, so loading and archiving can be done in parallel.

Hardware/Software	Units/Remarks
Work Station	2
AJ-PCD35 P2 Drive	1
LTO Drive	2
BD Drive	2
Database	SQL Server
SDI Output	Preview

Reference Data

Recording Time per LTO6 (2.5 TB) Tape

	Codec	Rec. Time
SD	DVCPRO	approx. 138 hours
	DVCPRO 50	approx. 69 hours
HD	DVCPRO HD	approx. 34 hours
	AVC-Intra50	approx. 69 hours
	AVC-Intra100	approx. 34 hours

Recording Time per BD (50 GB) Disc*1

	Codec	Rec. Time
SD	DVCPRO	approx. 3 hours 20 min.
	DVCPRO 50	approx. 1 hours 40 min.
HD	DVCPRO HD	approx. 50 min.
	AVC-Intra50	approx. 1 hours 40 min.
	AVC-Intra100	approx. 50 min.

Comparison of LTO and BD* data storage media

	LTO6	BD-R
Capacity	2.5TB *when uncompressed.	50GB
Transfer Speed (Maximum value)	160MB/S= 1280Mbps	216 Mbps *half to write

*1: Approx. 6 hours per BD (50 GB) disc can be archived in a the case of AVCHD (compatibility planned, in HG mode: approx. 13 Mbps).

Options (customizable)

Network Operation Terminal (Client PC)

This notebook PC is exclusively used for data searching.

Content Distribute Software

This software can be installed onto an existing PC and used for archived content that is stored onto Blu-ray Discs and other types of delivery media.

Software Support for other Codecs

AVCHD, XDCAM, ProRes, MPEG, HQ and other files can be loaded in their native format and archived into a single database together with P2 files.

OPTIONAL ACCESSORIES

Camera Studio System

[Applicable products: AJ-HPX3700G, AJ-HPX2700G, AJ-HPX3100G, AJ-HPX2000, AJ-HPX2100, AG-HPX600, AG-HPX500 series, AG-HPX370 series, AG-3DP1]

This new camera studio system boosts the level of cost-performance for a wide range of P2HD and DVCPRO HD camera recorders.
BNC cables transmit degradation-free HD digital images up to 328 feet (100 meters) in addition to giving you full remote control

AG-CA300G
Camera Adapter
Compact and lightweight

AG-BS300
Base Station
Equipped with two HD/SD SDI outputs and composite video output

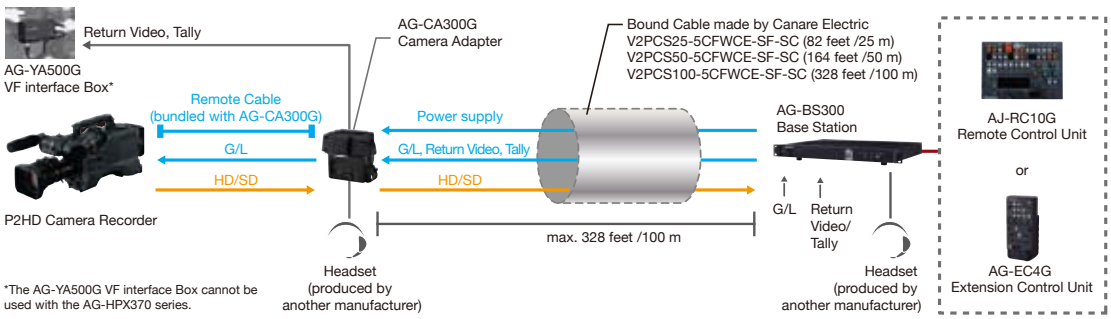
AG-EC4G
Extension Control Unit
For a studio camera system or standalone camera recorder

AG-YA500G
VF Interface Box
For viewfinder display of return image and tally

*The AG-YA500G VF Interface Box cannot be used with the AG-HPX370 series. The applicable viewfinder varies depending on the camera.

AJ-RC10G*
RCU (Remote Control Unit)
with 32 feet (10 meters) remote control cable
AJ-C10050G
Remote Control Cable
(164 feet /50 meters)

*Not available in some areas. Only functions that are supported by the camera can be controlled by the AJ-RC10G.



*The AG-YA500G VF interface Box cannot be used with the AG-HPX370 series.

P2 cam options

AJ-CVF100G
25.4 mm (1 inch)
HD Color EVF
Utilizing a 25.4 mm (1 inch) LCOS (Liquid Crystal On Silicon) display panel, the AJ-CVF100G provides cinematographers with accurate colors, fast motion response, excellent resolution, and smooth pixel edges for a natural look and feel, which minimizes the possibility of misdirected shots.

AG-CVF15G
Color HD EVF
Open two ways for LCD monitor viewing

AG-CVF10G
Color HD EVF
Open one way for LCD monitor viewing

AJ-HVF21G
50.8 mm (2 inches) HD EVF
59.94 Hz/50 Hz switchable

AJ-HVF21KG
50.8 mm (2 inches) HD EVF
59.94 Hz/50 Hz switchable

AJ-VF20WB
50.8 mm (2 inches) EVF
16:9/4:3 switchable

AJ-VF15B
38.1 mm (1.5 inches) EVF
for 4:3

BT-LH910G
228.6 mm (9 inches)
HD/SD LCD monitor

AJ-MC900G
Stereo Microphone

AJ-MC700P
Microphone Kit

AG-MC200G
XLR Microphone

AJ-GPS910G
GPS Unit

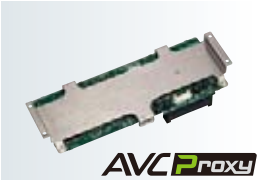
SHAN-TM700
Tripod Adaptor

P2 cam options

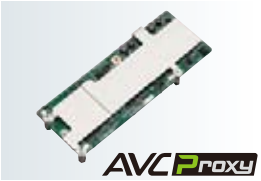
AJ-YAX800G
Video Encoder Card
*Camera Recorder software upgrade is required.

AJ-YA350AG
HD/SD Input Board
for AJ-HPX2000/HPX2100

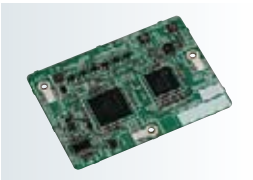
AJ-YBX200G
AVC-Intra Codec Board
for AJ-HPX2000/HPX2100



AG-YDX600G
Video Encoder Board
for AG-HPX600
The use of DCF Technologies is under license from Multi-Format, Inc.



AJ-YDX30
Video Encoder Board
for AJ-HPX3100G
The use of DCF Technologies is under license from Multi-Format, Inc.



AG-YA600G
HD/SD SDI Input Board
for AG-HPX600

AJ-WM30
Wireless Module
for AJ-HPX3100G and AG-HPX600

AJ-SC900
Soft Carrying Case
*Not available in some area

SHAN-RC700
Rain Cover
*Not available in some area

P2 cam Upgrade Software Key

AJ-SFU3100G
Wireless LAN
Upgrade Software Key
for AJ-HPX3100G

AG-SFU601G
Wired/Wireless LAN
Upgrade Software Key
for AG-HPX600

AG-SFU602G
Production Package
Upgrade Software Key
for AG-HPX600

AG-SFU603G NEW
LiveU Uplink Solution
Upgrade Software Key
for AG-HPX600

AG-SFU604G NEW
Proxy Playlist Editing
Upgrade Software Key
for AG-HPX600

P2 handheld options

AG-MC200G
XLR Microphone

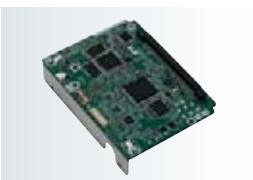
AG-B25
AC Adaptor Kit
for AG-HPX170 series
*This kit cannot be used with the AG-HPX255/HPX250.

CGA-D54/CGA-D54s
Battery Pack (5,400 mAh)

AG-EC4G
Extension Control Unit

P2 deck, P2 mobile, P2 portable deck, and P2 MSU options

AJ-MA75P
Rack Mount Adaptor
for AJ-HPD2500



AJ-YCX250G
AVCHD Codec Board
for AJ-HPM200 and AJ-HPD2500
The use of DCF Technologies is under license from Multi-Format, Inc.

CGA-D54/CGA-D54s
Battery Pack (5,400 mAh)
for AG-MSU10 and AG-HPD24

AG-MBX10G
Removable Interface Box
for AG-MSU10

P2 cam, P2 handheld options		AJ-HPX3700G	AJ-HPX2700G	AJ-HPX3100G	AJ-HPX2000/2100	AG-HPX600	AG-HPX500 series	AG-HPX370 series	AG-HPX250	AG-HPX255	AG-HPX170 series	AG-3DP1G
Camera Adapter	**AG-CA300G**	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes
Base Station	**AG-BS300**	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes
Extension Control Unit	**AG-EC4G**	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
VF Interface Box	**AG-YA500G**	Yes	Yes	Yes	Yes	Yes	Yes					Yes
RCU (Remote Control Unit)	**AJ-RC10G**	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes
Remote Control Cable (for AJ-RC10G)	**AJ-C10050G**	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes
25.4 mm (1 inch) HD Color EVF	**AJ-CVF100G**	Yes*1	Yes*1	Yes	Yes	Yes						Yes
Color HD EVF	**AJ-CVF15G**	Yes	Yes	Yes	Yes	Yes						Yes
Color HD EVF	**AJ-CVF10G**	Yes	Yes	Yes	Yes	Yes						Yes
50.8 mm (2 inches) HD EVF	**AJ-HVF21G AJ-HVF21KG**	Yes	Yes	Yes	Yes	Yes						Yes
50.8 mm (2 inches) EVF	**AJ-VF20WB**				Yes*2*3*4		Yes*3*4					
38.1 mm (1.5 inches) EVF	**AJ-VF15B**				Yes*2*3		Yes*3					
Stereo Microphone	**AJ-MC900G**	Yes	Yes	Yes	Yes							Yes
Microphone Kit (monaural)	**AJ-MC700P**					Yes	Yes	Yes				
XLR Microphone (monaural)	**AG-MC200G**					Yes	Yes	Yes	Yes	Yes	Yes	
GPS Unit	**AJ-GPS910G**	Yes	Yes	Yes	Yes							Yes
Tripod Adaptor	**SHAN-TM700**	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes
Video Encoder Card	**AJ-YAX800G**	Yes	Yes		Yes			Yes				
HD/SD Input Board	**AJ-YA350AG**				Yes							
AVC-Intra Codec Board*5	**AJ-YBX200G**				Yes							
Video Encoder Board	**AG-YDX600G**					Yes						
Video Encoder Board*5	**AJ-YDX30**			Yes								
HD/SD SDI Input Board	**AG-YA600G**					Yes						
Wireless Module*5	**AJ-WM30**			Yes*6		Yes*7						
Wireless LAN Upgrade Software Key	**AJ-SFU3100G**			Yes								
Wired/Wireless LAN Upgrade Software Key	**AG-SFU601G**					Yes						
Production Package Upgrade Software Key	**AG-SFU602G**					Yes						
LiveU Uplink Solution Upgrade Software Key	**AG-SFU603G**					Yes						
Proxy Playlist Editing Upgrade Software Key	**AG-SFU604G**					Yes*8						
Soft Carrying Case	**AJ-SC900**	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Rain Cover	**SHAN-RC700**	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
AC Adaptor Kit	**AG-B25**									Yes		
Battery Pack (5,400 mAh)	**CGA-D54/D54s**								Yes	Yes	Yes	
P2 Card (F series)*5	**AJ-P2E064FG AJ-P2E032FG AJ-P2E016FG**	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SD/SDHC Memory Card		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
microP2 Card *9	**AJ-P2M032AG AJ-P2M064AG**			Yes	Yes	Yes		Yes	Yes	Yes		
Memory Card Adapter *9	**AJ-P2AD1G**			Yes	Yes	Yes		Yes	Yes	Yes		Yes
HD/SD LCD monitor	**BT-LH910G**	Yes*10	Yes*10	Yes*10	Yes*10	Yes*10	Yes*10	Yes*10				
Anton/Bauer Battery		Yes*11	Yes*11	Yes*11	Yes*11	Yes*11	Yes*11	Yes*11				Yes*11
Anton/Bauer UltraLight	**33012**			Yes								Yes
Anton/Bauer UltraLight	**33013**	Yes	Yes	Yes	Yes	Yes	Yes	Yes				Yes
Portable H.264 Proxy Recorder	**FOCUS FS-P250**								Yes*12	Yes*12		
Portable Uplink Unit	**LiveU LU40 series**					Yes*13						

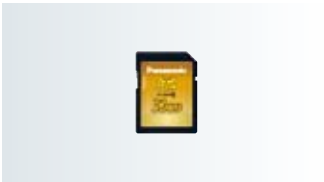
Yes: It is possible to use it. *1: Set VF SEL to COLOR in the MENU setting on the camera recorder. *2: A MENU setting on the camera recorder is required. The viewfinder image is a down-converted image. *3: Usable only when the camera recorder is set to 60 (59.94) Hz. *4: Set DOWNCON MODE to SQUEEZE in the MENU setting on the camera recorder. *5: To use the AVC-Intra Codec Board, Video Encoder Board, Wireless Module, and 16 GB/32 GB/64 GB P2 card, the software for the camera recorder may need to be updated depending on the existing software version. For details, see the Panasonic website. http://pro-av.panasonic.net/ *6: The optional AJ-SFU3100G Upgrade Software Key is required to use the AJ-WM30 Wireless Module. *7: The optional AG-SFU601G Upgrade Software Key is required to use the AJ-WM30 Wireless Module. *8: In addition to the AG-SFU604G Upgrade Software Key, the AG-YDX600G Video Encoder Board and AG-SFU601G Upgrade Software Key are required for operation. For a wireless LAN connection, the AJ-WJ30 Wireless Module is also required. *9: A firmware upgrade is required for the P2 device. *10: A mounting bracket (purchased separately) is required to mount on a camera recorder. *11: The applicable battery pack varies depending on the model. *12: You may need to update AG-HPX255/HPX250 firmware. Please refer to the "service and support" on the Panasonic Website (http://pro-av.panasonic.net/). *13: In addition to the AG-SFU603G Upgrade Software Key and the AG-YDX600G Video Encoder Board are required for uplink operation.

P2 deck, P2 mobile, P2 portable deck, P2 MSU		AJ-HPD2500	AJ-HPM200	AG-HPD24	AG-MSU10
Rack Mount Adaptor	**AJ-MA75P**	Yes*1			
AVCHD Codec Board	**AJ-YCX250G**	Yes	Yes		
Battery Pack (5,400 mAh)	**CGA-D54** **CGA-D54s**			Yes	Yes
Removable Interface Box	**AG-MBX10G**				Yes
P2 Card (F series)*2	**AJ-P2E064FG** **AJ-P2E032FG** **AJ-P2E016FG**	Yes	Yes	Yes	Yes
SD/SDHC Memory Card		Yes	Yes	Yes	
microP2 Card *3	**AJ-P2M032AG** **AJ-P2M064AG**	Yes	Yes	Yes	
Memory Card Adapter *3	**AJ-P2AD1G**	Yes	Yes	Yes	

Yes: It is possible to use it. *1: A slide rail (purchased separately) is required for rack mounting. *2: To use the AVC-Intra Codec Board and 16 GB/32 GB/64 GB P2 card, the software for the camera recorder may need to be updated depending on the existing software version. For details, see the Panasonic website. http://pro-av.panasonic.net/ *3: A firmware upgrade is required for the P2 device.

P2 general options

AJ-P2E064FG
AJ-P2E032FG
AJ-P2E016FG
P2 Card (F series)



SD/SDHC Memory Card

AJ-P2M032AG NEW
AJ-P2M064AG NEW
microP2 Card

AJ-P2AD1G NEW
Memory Card Adapter

Avid NLE P2 Plug-In Software*1 NEW

for Avid Media Composer v6.5 or later

AJ-PS001G
Software Key for AVC-Proxy re-link
(Scheduled for release in June, 2013/For purchase)

AJ-PS002G
Software Key for AVC-Intra50/100 P2 file export
(Scheduled for release in June, 2013/For purchase)

AJ-PS003G
Software Key for AVC-LongG P2 file export
(Scheduled for release in autumn, 2013/For purchase)

AJ-PS004G
Software Key for AVC-LongG file import to edit
(Scheduled for release in autumn, 2013/For purchase)

Other Manufacturers' Products

Bound Cable for Camera Studio System
(between AG-BS300 and AG-CA300G)

[Canare]
V2PCS25-5CFWCE-SF-SC (82 feet/25 meters)
V2PCS50-5CFWCE-SF-SC (164 feet/50 meters)
V2PCS100-5CFWCE-SF-SC (328 feet/100 meters)

Power Cable for Camera Studio System
(between AG-BS300 and AG-CA300G)

[Canare]
DC50V10-CE01PS-SC (164 feet/50 meters)
DC100V10-CE01PS-SC (328 feet/100 meters)

Canare Electric CO., Ltd.
http://www.canare.co.jp/oversea/mainmenu.html

Anton/Bauer
Dionic Battery

Anton/Bauer
Hytron Battery

Anton/Bauer
UltraLight 2
- **33012**
- **33013**

FOCUS FS-P250
Portable H.264 Proxy Recorder
for AG-HPX255 and AG-HPX250
*You may need to update AG-HPX255/HPX250 firmware. Please refer to the "service and support" on the Panasonic Website (http://pro-av.panasonic.net/).
The use of DCF Technologies is under license from Multi-Format, Inc.

LiveU LU40 series NEW
Portable Uplink Unit

THE P2 PARTNERS

Adobe

- Adobe Creative Suite 6 Production Premium
- Adobe Creative Suite 6 Master Collection
- Adobe Premiere Pro CS 6

www.adobe.com

- Final Cut Pro X

www.apple.com/finalcutpro

- Autodesk® Flame® Premium 2013
- Autodesk® Smoke® 2013

www.usa.autodesk.com

avid.com

AVC-Intra production
Accelerated

www.Avid.com/mediacomposer

bitcentral

- Create: Edit In a Browser
- Oasis: Cloud Based Archiving & Sharing
- Precis: Open News Production

www.bitcentral.com

DALET

- Dalet Enterprise Edition
- Dalet News Suite
- Dalet Sports Factory
- Dalet Media Life

www.dalet.com

DVFilm RAYLIGHT

- RayLight for Mac 3.0
- RayLight ULTRA ULTRA PowerPack I, II
- MXFX

www.dvfilm.com/raylight/mac/index.htm
www.dvfilm.com/MXFX

DVS

- CLIPSTER® The DI Solution
- VENICE Filed-based Broadcasting
- Spycer® Intelligent Data Manager

www.dvs.de

EVS

- XT3 Live Event Production
- XS Tapeless Studio Production
- Xedio News Modular Production

www.evs.tv

grass valley

- K2 Summit Production Client
- K2 Solo HD/SD Server
- EDIUS Pro 6.5 Non-linear Editor
- STRATUS Workflow Application Framework

www.grassvalley.com

harmonic

- Spectrum
- MediaGrid
- MediaDeck
- ProMedia Carbon

www.harmonicinc.com

HARRIS

- NEXIO AMP®
- NEXIO Volt™
- Velocity ESX™
- QuiC™

www.broadcast.harris.com

IMAGINE PRODUCTS, INC.

- ShotPut Pro™
- ProxyMill™
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www.imagineproducts.com

MAIN CONCEPT
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Digital Video Solutions

- Matrox MXO2 Family
- Matrox MXO
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www.matrox.com/video

MOG

www.mog-technologies.com

EVS opencube

ENGSoft :

- AVC-Intra Support
- Automatic Ingest into Avid Interplay

www.evs-opencube.com

Quantel

- Enterprise sQ
- QTube
- Pablo
- Qube

www.quantel.com

Telestream

- Pipeline™ HD Dual
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www.telestream.net

VITEC
VIDEO INNOVATIONS

- FOCUS FS-P250 Proxy Recorder
- PROXSYS PX-Series Professional Media Asset Management

www.FOCUSinfo.com

Please refer to the latest Non-linear Compatibilty Information,
P2 Support and Downlord and Service Information, etc. at Panasonic web site.

http://pro-av.panasonic.net/

*NOTES REGARDING THE HANDLING OF P2 FILES USING A PC

Mounting and Transferring Files

The PC must be installed with the included P2 driver in order to recognize, copy and transfer P2 files. This driver is also necessary when using the PC card slot and when handling P2 files stored on a hard-disk device, such as P2 store. For other operating requirements, refer to the P2 installation manual. The P2 driver and the P2 installation manual can be downloaded free from a Panasonic website. Visit http://pro-av.panasonic.net/ and click “P2 Support and Download.”

Preview and Nonlinear Editing

To preview (play) P2 files on a PC, it is necessary to install P2 Viewer software (downloadable for free, for Windows only) or P2 CMS content management software (downloadable for free, for both Windows and Mac), both from Panasonic, or P2-compatible editing software available from other companies (for details, visit http://pro-av.panasonic.net/en/sales_o/p2/partners.html). Note that each software places specific requirements on the operating environment, and the operating environment must meet additional requirements to play and edit HD content on Windows PCs and Macs. For P2 Viewer or P2 CMS download and operating requirement information, visit http://pro-av.panasonic.net/. For operating requirements and details of other P2 editing software, visit the website of the relevant software manufacturer.

Note Regarding 24 bit Audio

Clips recorded using 24 bit audio must be played back with 24 bit compatible P2 equipment or the P2 Viewer/P2 Viewer Plus. If clips are played back with equipment not compatible with 24 bit audio, the clip number will be indicated in red and the clips will not be played back. A P2 Viewer not compatible with 24 bit audio will not reproduce the sound properly. To play back those clips, use the latest version of P2 Viewer/P2 Viewer Plus. For the latest information on 24 bit compatible P2 equipment and P2 Viewer/P2 Viewer Plus, see “Support & Download” on the Panasonic website (http://pro-av.panasonic.net/).

Precautions When Using SDHC/SDXC Memory Cards with the AJ-P2AD1G Memory Card Adapter

•Only the DV, DVCPRO, DVCPRO50, and AVC-Intra50 recording formats can be used when using the Memory Card Adapter on P2 Series products. Memory cards of Class 10 or higher are recommended, but recording may not be possible with some cards. •DVCPRO HD and AVC-intra100 cannot be used. •Memory card data capacity must be 4 GB to 128 GB. •Interval Rec, One-Shot Rec, Loop Rec, or One-Clip Rec cannot be used. •If the reading performance is insufficient during playback, frames might be skipped (Best-effort playback). •When copying clips that extend over two SDHC/SDXC memory cards onto another SDHC/SDXC memory card, the connecting relationship between the cards will not be saved. Under certain conditions, the connecting relationship between original and copied SDHC/SDXC memory cards is saved.

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Factories of AVC Networks Company have received ISO14001:2004-the Environmental Management System certification. (Except for 3rd party’s peripherals.)

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